

FOCUSING MICROMACHINED ULTRASONIC
TRANSDUCER ARRAYS AND RELATED
METHODS OF MANUFACTURE

ABSTRACT OF THE DISCLOSURE

A micromachined ultrasonic transducer array that focuses in the elevation direction. A curved lens is used to narrow the beam width in the elevation direction so that contrast resolution is improved and clinically relevant. Alternatively, a curved probe is formed by bending a micromachined substrate to have a predetermined curvature. The invention is further directed to methods of manufacturing such transducers.

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